The Spark Gap

JUNE 1981

Book VII Vol VI

Official Journal of the Wellesley Amateur Radio Society

FIELD DAY!

June is a big month for outdoor radio activities and of course the biggest one is Field Day. As we did in 1979 we will be traveling to Peaked Hill on Martha's Vineyard for our operation. Even if you don't plan on operating much you couldn't find a much nicer place to spend a weekend than on the Vineyard. Our site overlooks the ocean on three sides and is high enough to give a commanding view of much of the island. And being surrounded by water has never been known to hurt radio propagation too much.

Many people commented that our 1979 Field Day was the best ever, so if you didn't make it then or even if you did, sign up now for our 1981 trip to the Vineyard. The cost has been estimated at $22 per person which includes round trip ferry tickets, food, and all club expenses not covered in the budget. Payment should be made in advance to Nels Anderson, K1UR, 32 Westgate Road, Apt. 6, Chestnut Hill, Mass. 02167.

We will be leaving on Friday evening, June 26th, on the 10:45 pm ferry, and returning Sunday evening, June 28th on the 6:30 pm ferry, Don't miss out! □

ARRL JUNE VHF CONTEST

For those of you whose operating interests extend into the VHF and UHF range, plan on spending the weekend of June 13 and 14 on beautiful, though usually foggy, Mt. Equinox in Vermont for the ARRL VHF QSO Party. We will once again be doing battle with all the VHF "big guns" from one of the prime operating sites for VHF on the East Coast.

For those of you who are less interested in contesting, there is also an antique car race up the mountain during the entire weekend which we will help out with by providing communications.

All are welcome no matter what your experience. If you want to try out the bands above 2 meters, this is your chance. K1TK and K1UR hope to have their 10 GHz Gunnplexers ready for their first major run, so even the microwave bands will be covered. If you are interested in coming along, contact David Curry, K1TK, at 237-2450 or at the meetings. □

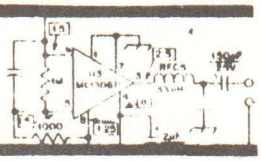
OFFICERS

Congratulations to our new Wellesley Amateur Radio Society officers for 1981/82, as elected at the May 21 meeting. They will take office at the beginning of the new club year, starting September 1, 1981.

PRESIDENT:
David Curry, K1TK
VICE PRESIDENT:
Dick Paret, WA1ZLQ
TREASURER:
C.J. McDonald, WB1BUM
RECORDING SECRETARY:
Nels Anderson, K1UR
CORRESPONDING SECRETARY:
Saul Dinman, K1PDX
FUND RAISING:
Kevin Kelly, WA1YHV
OPERATING ACTIVITIES:
David Kent, N2AWG

MEETINGS THIS MONTH:
June 4, 1981 at 7:30 pm
June 18, 1981 at 7:30 pm
Intermediate Bldg., Wellesley Hills, Mass.

Tek Tok



by Nels Anderson, K1UR

Many of you by now are familiar with what the microprocessor controller on W1TKZ/R does but probably not so many are aware of how it "does its thing." A computer controller may sound like some amazing high technology system, but in reality it is nothing more than a bunch of clocks that are started and stopped by outside events (i.e. keying up the repeater) and a bunch of on/off switches. That's it. Now that isn't really so complicated is it?

In the W1TKZ/R controller four clocks are used. They are as follows: 1) Time out timer, 2) I.D. timer, 3) Phone connect timer, 4) Command timer. The first two are required to meet FCC regulations and the other two are there only to enhance our particular installation.

The time out timer is started each time a signal is received and reset within one second after the signal stops. It really doesn't do anything unless someone becomes an "alligator" causing the timer to reach its limit and turn the transmitter off.

The I.D. timer works in a manner similar to the time out timer. It is reset each time the repeater identifies itself, which requires the repeater to be keyed up, and stops each time it reaches a pre-set limit. When the limit is reached, a sort of internal switch is set to make the repeater I.D. as soon as the received signal stops.

The phone timer prevents the phone from staying "off hook" and thus preventing the repeater from receiving commands from a control operator.

The command timer is set so that any command that is not completed within eight seconds is ignored. This helps prevent false commands from being received by the decoding of voices while still allowing plenty of time for legitimate commands to be entered.

The other half of the system is a set of on/off switches. There are presently switches in use to do the following: turn the transmitter(s) on, select the audio from one of up to four receivers, generate one of eight tones, and connect the phone. Since we do not have four transmitters or receivers on the repeater now, this ability is in there for future expansion to include cross band operation or auxiliary receive sites. There are provisions for sixteen additional switches which can be used for any desired purpose. Already under consideration for these switches is the ability to turn an amplifier on and off, and to operate a time of day clock. The number of switches actually in use on the system is only limited by ones imagination.

That's really all there is to it. Of course to make all these clocks and switches work is a little more complicated than just described, but not really that much. In the future, this system will be explained in greater detail. □

OFFICERS

PRESIDENT:
David Curry, K1TK, 237-2450
VICE PRESIDENT:
Erik Thoresen, K1OGF, 653-1216
CORRESPONDING SECRETARY:
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Erik Thoresen, K1OGF, 653-1216
REPEATER COMMITTEE:
David Curry, K1TK, 237-2450
Bill Downing, WA1PQY, 655-3040
Dick Paret, WA1ZLQ, 762-5074
Scott Nacey, WA1YOJ, 235-1599

Above officers in effect to 8/31/81.

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Official Journal of the Wellesley Amateur Radio Society

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THE "SPARK GAP" IS A MONTHLY PUBLICATION OF THE WELLESLEY AMATEUR RADIO SOCIETY. ITS PRIMARY PURPOSE IS TO KEEP ITS MEMBERS ABREAST OF CURRENT HAPPENINGS, F.C.C. RULES & REGULATIONS CHANGES, AND TO LIST EQUIPMENT OFFERED FOR SALE OR TRADE BY MEMBERS. MEMBERS ARE ENCOURAGED TO CONTRIBUTE TO THE "SPARK GAP" AND MAY SENT THEIR ARTICLES (TYPEWRITTEN IF POSSIBLE) TO THE EDITOR-IN-CHIEF OR TO THE CLUB ADDRESS.

THE WELLESLEY AMATEUR RADIO SOCIETY IS A NON-PROFIT ORGANIZATION DEDICATED TO THE PROMOTION OF AMATEUR RADIO THROUGH INSTRUCTION, FELLOWSHIP, DEMONSTRATION, AND ENCOURAGEMENT OF PARTICIPATION. ANNUAL MEMBERSHIP IN THE SOCIETY IS $8. THE CLUB YEAR RUNS SEPTEMBER 1 TO AUGUST 31. AMATEUR NOVICE AND GENERAL CLASSES ARE CONDUCTED REGULARLY AT NO COST. TO ENROLL IN A CLASS, OR GAIN INFORMATION ABOUT THE SOCIETY IN GENERAL, WRITE:

THE WELLESLEY AMATEUR RADIO SOCIETY
324 WASHINGTON STREET
WELLESLEY HILLS, MASS. 02181

Minutes

Meeting of April 16, 1981:

The meeting was opened at 7:54 pm by President David Curry, K1TK.

The entire meeting was devoted to instructing operators who had signed up for the Boston Marathon on the procedures to be followed. Booklets with information on the race communications and identification visors were distributed. Dick Paret, WA1ZLQ, led the discussion.

The meeting was closed at 8:59 pm.

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Meeting of May 7, 1981:

The meeting was opened at 7:50 pm.

The secretary's report was read.

David Curry, K1TK, gave a recap of our operation during the Boston Marathon.

It was announced that the antique car race has been moved to the same weekend as the VHF QSO Party so it will be possible to participate in both.

Field Day was discussed briefly.

A motion was made by C.J. McDonald, WB1BUM, to spend $55 to buy a new battery for the generator as the old one will no longer hold a charge. The motion was voted on and passed.

The meeting was closed at 8:32 pm.□

Dues Dues Dues...

One final reminder about ARRL dues which go up July 1st. You can still renew until then at the current rate of $18 per year and if you renew through WARS you can help the club out as well. The club gets to keep part of your dues payment for our own uses with the remainder going to the ARRL where your ARRL membership will be renewed in the normal manner. Help out WARS when you renew by forwarding your payment (made out to WARS) to our treasurer, Jim Hatherley, WA1TBY, 46 Hobson Street, Brighton, Mass. 02135.□

Hearabouts....

You only have a few more weeks to send in your comments to the FCC on the proposed "plain language" rewrite of the Amateur Service Rules. The deadline for comments is June 19, with reply comments due by August 19. There are a number of controversial changes in the new rules, despite the FCC's claims that the rewrite changes only the language and not the substance of the Amateur Rules. In the new rules, any antenna structure higher than 20 feet above the building it is mounted on would require special permission. All mention of net and round-table operation has been omitted. The very definition of Amateur Radio in Rule 97.1 has been deluted to make Amateur Radio a service used by persons "only for their own personal satisfaction". What ever happened to public service?

These are some of the more controversial changes in the plain language rules. If these changes bother you, you should send your comments to the Secretary, Federal Communications Commission, Washington, D.C. 20554. □

OLDE TIME RADIO

"The Way to the General Ticket Was Never a Primrose Path...."

by Lee Gordy, WDØCOV

Many a weary Novice listening to the staccato rhythm of the code, or nodding over the text for Element 3, has longed for a return to the "good old days" of Amateur Radio.

Dream on, OM.

Even in the dawn era of spark gap transmitters, honeycomb coils, and "cat whisker" crystal detectors, the way to an Amateur First Grade License was no primrose path. Consider the requirements established by the United States Department of Commerce for an Amateur station and operator's license more than half a century ago.

First, the applicant was required to complete Form 756, "Application for Operator's License", and Form 762, "Amateur Applicant's Description of Apparatus".

Third, the applicant then appeared at an examination point to:

> Demonstrate his ability to transmit and receive International Morse Code at a speed of at least 10 words per minute. The receiving test was given, if possible, bu means of automatic equipment.
>
> Pass a written examination covering: (a) Experience, 20 points, (b) diagram of receiving and transmitting apparatus, 10 points, (c) knowledge of transmitting apparatus, 20 points, (d) knowledge of receiving apparatus, 20 points, (e) knowledge of operation and care of storage batteries, 10 points, (f) knowledge of motors and generators, 10 points, (g) knowledge of international regulations governing radio communications and the United States radio laws and regulations, 10 points.

Any applicants who failed were required to wait at least three months from the date of the previous examination before renewing their applications. Successful applicants were granted station and Amateur First Class Operator licenses that permitted them to use:

(a) A transmitted wave length up to 200 meters.
(b) A transformer input not to exceed one kilowatt.

So, when you burn the midnight oil for your General "ticket", remember that generations of earlier hams have followed a similar exacting path to success! □

It Seems to Me...

Should we look more closely at the FCC?

by Dick Stiern, K6REZ

Scarcely a day goes by that we don't hear about or read about some important decision from the FCC. Their directors make endless decisions affecting our entire Amateur Radio activity, not to mention commercial radio, TV, and the entire radio spectrum. We blithely accept these decisions, which encompass everything from the jargon of the CBers to the suitability of the programs and movies our children watc on the boob-tube.

In recent years, there has been an obvious down-grading of Amateur Radio by FCC decisions. One writer has said there is "a watering down of Amateur Radio into non-existence, making the marriage of the Amateur and Citizen's Services easier." Actually, the focus of the FCC seems to be on the Citizen's Service. Their response to the abuses of the CBer has been to penalize Amateur Radio with the loss of frequencies, to revoke certain privileges, and to devise more difficult Amateur examinations. Little recognition comes from the FCC toward the Amateurs upgrading their skills, or who are active in public service.

None of use know very much about the actual make-up of the Commission. Who are these people? What about the background, experience and qualifications of its members? What are the duties, salaries and responsibilities of the Commission members themselves?

Maybe it's time for us to wake up. As licensed Amateurs, of course we abide by sensible regulations, but

aren't we also concerned citizens? Is it not time to take a close look at the FCC governing body, as to its composition and deliberations? Are the Commissioners qualified appointees, or like some present day political boards and judicial appointees, has the FCC become a political dumping ground for unqualified bureaucrats? As a starting point, I suggest the ARRL investigate and publish facts about the FCC.

What do you think? You say I'm getting too political? I think it's time to be concerned about the future of our Amateur Radio hobby--or we may wake up some morning and have no Amateur Radio to worry about. □

--The Communicator, Shafter, Calif. via Worldradio

Harmonics About Town

Congratulations to Dick Paret, WA1ZLQ, on the birth of his second son, Thomas Bernard. Dick is, of course, responsible for coordinating many of the public service events WARS is involved in and it looks like he is raising his own corps of operators. Anyone who's heard Richard, Jr., on the air (usually with a control op!) knows Dick believes Amateur Radio cannot be started too young. □

EVENTS

On May 3 a group of Amateurs organized by Dick Paret, WA1ZLQ, helped the Wellesley Teacher's Association with their annual bike-a-thon. WARS has been helping with the event for many years, but this year had probably the greatest number of participants ever.

The ten mile course through Wellesley and Weston was patroled as well as having people manning the checkpoints along the route.

Later in the day, most of the same group was involved with the Charles River Run, a 6.2 mile road race along the river in Boston. Leader information and other help for the race officials was provided. □

hr REPORT

Spread spectrum was scheduled to appear on the U.S. Amateur bands early in May, with the inaugural contacts taking place between W4RI and K2SZE under the Special Temporary Authorization recently granted by the FCC. They're planning to operate Tuesdays, Thursdays, and Saturdays using 40 meters from 1600Z to 1800Z, and 40 or possible 20 meters from 2000Z to 2200Z. Operation on 80 is planned for Tuesday and Friday evenings from 0300Z to 0500Z.

Though the spread spectrum transmissions will not be audible by convential means, progress of the experiments can be monitored by listening to the "service frequencies," 3725, 7100, and 14150 where W4RI and K2SZE will coordinate their efforts using conventional SSB.

hr Report, May 1, 1981

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Abolition of CB licenses has been proposed by FCC Acting Chairman Lee in recent speeches. The suggestion is receiving some attention at staff level.

hr Report, May 1, 1981

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Delays in Amateur license processing are resulting from the FCC's new computer program, which went on line in February. No licenses at all were issued from February 13 through March 13, and since then the computer output has been manually monitored to weed out print-out errors caused by the usual start-up glitches. Delays of two months or even a bit more may be expected for the near future, though expectations are that all bugs will be out and the system running smoothly by mid-June.

hr Report, May 15, 1981

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Remaining restrictions on 160 could be relaxed at next week's Commission agenda meeting, when the ARRL's Petition for Agency Action comes up for discussion. Also on the agenda is the Plain Language Radio Control Rules revision.

hr Report, May 15, 1981□

The Spark Gap

WELLESLEY AMATEUR RADIO SOCIETY

324 Washington Street
Wellesley Hills, Massachusetts 02181

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